

## CLAIMS

What is claimed is:

- 5 1. A support for the center conductor of a coaxial cable comprising:  
a dielectric for surrounding the center conductor,  
a first conductive bead ring portion and a second bead ring portion, the first  
and second bead ring portions joining longitudinally,  
a first cylindrical recess coaxially formed in the first and second bead ring  
10 portions for containing the dielectric, and  
a second recess formed in the first and second bead ring portions, the second  
recess connected to the first recess, the second recess for containing excess dielectric.
2. The support of Claim 1 further comprising locking means locking the first and  
15 second conductive bead ring portions together.
3. The support of Claim 1 where the locking means comprises braze material.
4. A method of forming a support for the center conductor of a coaxial cable, the  
20 center conductor tapering from a first diameter on both sides of the support to a  
second smaller diameter in the region of the support, the method comprising:  
placing dielectric preforms around the center conductor in the region having  
the second smaller diameter,  
providing longitudinally split conductive bead rings surrounding the dielectric  
25 preforms,  
the conductive bead rings having a first cylindrical recess coaxially formed for  
containing the dielectric preforms and the center conductor,  
the conductive bead rings having a second recess connected to the first recess  
for containing excess dielectric,  
30 the conductive bead rings, dielectric preforms, and center conductor forming a  
support assembly,  
nesting the support assembly between dams having tapered recesses matching  
the tapering of the center conductor,

nesting the support assembly and the dams in a tool nest to form a tool nest assembly, and

heating the tool nest assembly.

- 5     5.     The method of Claim 4 where the step of forming a support assembly further comprises:

providing locking recesses in the conductive bead rings, and  
providing locking material in the locking recesses.

- 10     6.     A method of forming a support for the center conductor of a coaxial cable, the center conductor tapering from a first diameter on both sides of the support to a second smaller diameter in the region of the support, the method comprising:

placing dielectric preforms around the center conductor in the region having the second smaller diameter,

- 15     providing longitudinally split conductive bead rings surrounding the dielectric preforms,

the conductive bead rings having a first cylindrical recess coaxially formed for containing the dielectric preforms and the center conductor,

- 20     the conductive bead rings having a second recess connected to the first recess for containing excess dielectric,

providing locking recesses in the conductive bead rings, and  
providing locking material in the locking recesses.

the conductive bead rings, locking material, dielectric preforms, and center conductor forming a support assembly,

- 25     nesting the support assembly between dams having tapered recesses matching the tapering of the center conductor,

placing spacers at the ends of the dams,

nesting the support assembly, spacers, and the dams in a tool nest to form a tool nest assembly,

- 30     placing a weight on top of the tool nest assembly, and  
heating the tool nest assembly.